

Product datasheet for **SC317316**

PLA2G2F (NM_022819) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PLA2G2F (NM_022819) Human Untagged Clone
Tag:	Tag Free
Symbol:	PLA2G2F
Synonyms:	GIIFsPLA2; sPLA2-IIF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC317316 representing NM_022819. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGGCAGATGGGCAAAGGCCAACCCAAAGGGTTCAAAAGAAGGTGCTGGATAGATGCTTCTCTGGG
TGGAGGGGCCACGCTTCGGGGCCTCCTGTCTTCAAGAACCTCCAGGTCTAGCCTGGGTATGAAGAAG
TTCTTACCCTGGCCATCCTTGTGTCAGCGTTCTGTCCACAGCTCACGGCAGCCTGCTCAACTGAAG
GCCATGGTGGAGCCGTACAGGGAGGAGCGCCATCCTGTCTTCGTGGGCTACGGTTGCTACTGTGGG
CTGGGGGGCCGTGCCAGCCCAAGGATGAGGTGGACTGGTGTGCCACGCCACGACTGCTGCTACCAG
GAACTCTTTGACCAAGGCTGTCACCCCTATGTGGACCACTATGATCACACCATCGAGAACAACACTGAG
ATAGTCTGCAGTGACCTCAACAAGACAGAGTGTGACAAGCAGACATGCATGTGTGACAAGAACATGGTT
CTGTGCCTCATGAACCAGACGTACCGAGAGGAGTACCGTGGCTTCTCAATGTCTACTGCCAGGGCCCC
ACGCCCAACTGCAGCATCTATGAACCGCCCCCTGAGGAGGTCACCTGCAGTACCAATCCCCAGCGCCC
CCCGCCCTCCCTAG
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTAAACGGCCGGC
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Restriction Sites:	Sgfl-MluI
Plasmid Map:	<input type="checkbox"/>
ACCN:	NM_022819
Insert Size:	636 bp



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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_022819.3</u>
RefSeq Size:	2737 bp
RefSeq ORF:	636 bp
Locus ID:	64600
UniProt ID:	<u>Q9BZM2</u>
Cytogenetics:	1p36.12
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	alpha-Linolenic acid metabolism, Arachidonic acid metabolism, Ether lipid metabolism, Fc epsilon RI signaling pathway, Glycerophospholipid metabolism, GnRH signaling pathway, Linoleic acid metabolism, Long-term depression, MAPK signaling pathway, Metabolic pathways, Vascular smooth muscle contraction, VEGF signaling pathway
MW:	23.3 kDa

Gene Summary:

May play a role in lipid mediator production in inflammatory conditions, by providing arachidonic acid to downstream cyclooxygenases and lipoxygenases (By similarity). Phospholipase A2, which catalyzes the calcium-dependent hydrolysis of the 2-acyl groups in 3-sn-phosphoglycerides (PubMed:11112443). Hydrolyzes phosphatidylethanolamine more efficiently than phosphatidylcholine, with only a modest preference for arachidonic acid versus linoelic acid at the sn-2 position. Comparable activity toward 1-palmitoyl-2-oleoyl-phosphatidylserine vesicles to that toward 1-palmitoyl-2-oleoyl-phosphatidylglycerol (By similarity). Hydrolyzes phosphatidylglycerol versus phosphatidylcholine with a 15-fold preference (PubMed:11112443).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) encodes a longer protein (isoform 1), which lacks a signal peptide. With the available conservation data, it is not clear which start codon is most likely used.